

ABSTRACT OF THE DISCLOSURE

For the purpose of obtaining disease-free seeds of high quality by efficiently controlling a seed borne disease of seeds of vegetable crops, ornamental plants and other herbage, seeds are subjected to a physical or chemical sterilization to reduce a fungal or bacterial amount held by the seeds and then the thus sterilized seeds are treated by an effective microorganism which is antagonistic against a pathogen of the seed borne disease. Controlling effect and fixing property of the effective microorganism can be enhanced by using a plurality of fungal or bacterial strains thereof. Examples of such effective microorganisms include fungi or bacteria belonging to the genus *Pantoea* or the genus *Leclercia* which is antagonistic against the pathogen belonging to the genus *Xanthomonas*.